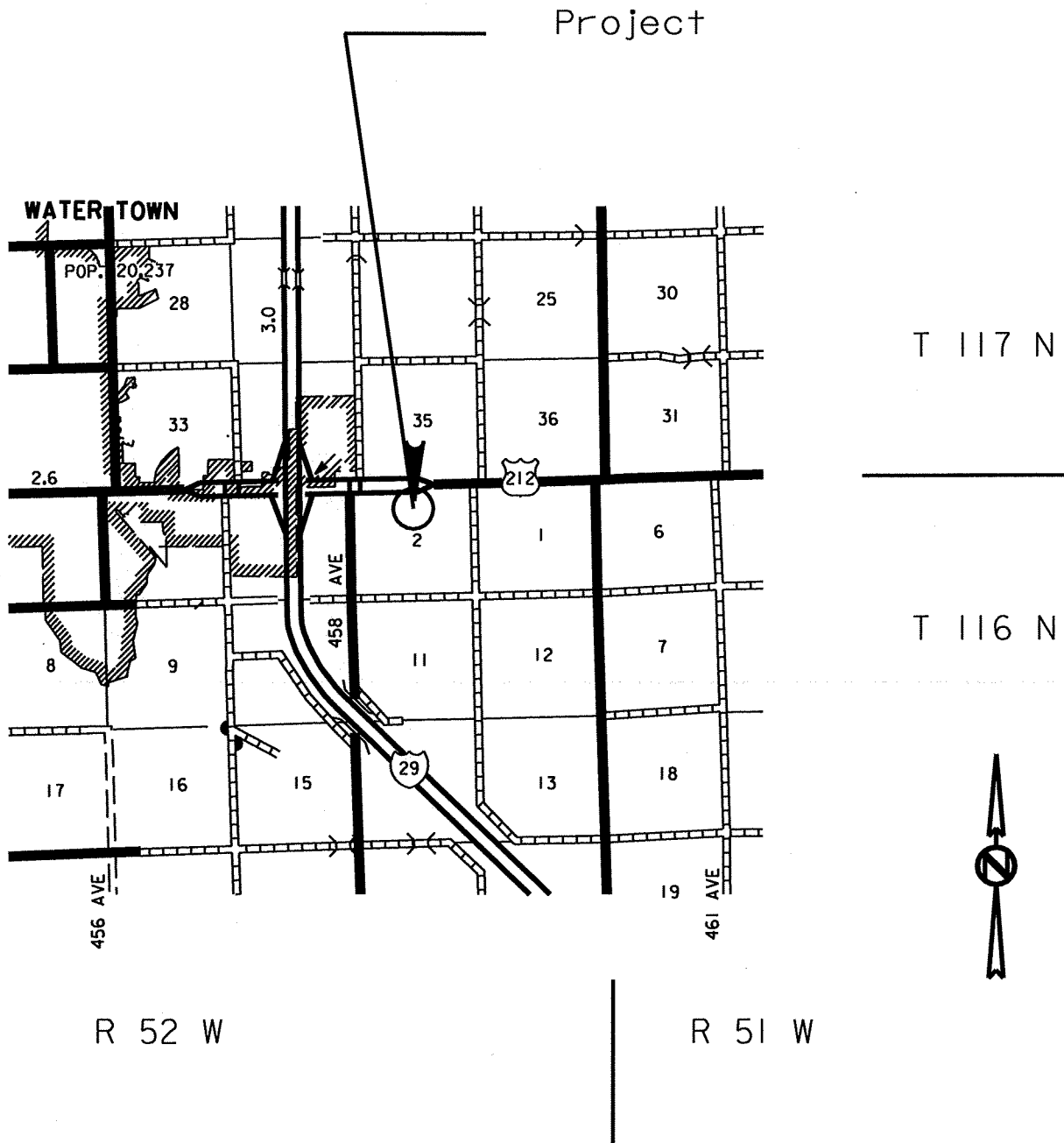


410A265
CODINGTON COUNTY



410A265
CODINGTON COUNTY

INDEX OF PLAN SHEETS

Sheet No. 1	Layout Map
Sheet No. 2	Index of Plan Sheets and Estimate of Quantities
Sheet Nos. 3 thru 7	Plan Notes
Sheet Nos. 8 and 9	Approach Slab Layout and Details
Sheet No. 10	Approach Slab Joint Details

ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY
009E0010	Mobilization	Lump Sum
120E0020	Unclassified Excavation	Lump Sum
260E2090	Gravel Cushion, State Furnished	168 Ton
380E3540	8" PCC Approach Pavement	533.3 Sq. Yd.
380E6110	Install Steel Bar in PCC Pavement	80 Each

410A265
CODINGTON COUNTY

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2004 Edition and Required Provisions, Supplemental Specifications and/or Special Provisions as included in the Proposal.

SCOPE OF WORK

Work on this project includes but is not limited to: preparation of grade for new approach pavement and installation of new approach pavement.

EXISTING CONCRETE FLOOR

The existing concrete floor of the cold storage shed is 6 inches thick with No. 4 reinforcing steel at a 24" spacing. The coarse aggregate in the existing floor is crushed quartzite.

UNCLASSIFIED EXCAVATION

Limits of the removal shall be excavated to the proper elevation to allow for the placement of gravel and new concrete approach pavement.

Compaction of the grade prior to installation of gravel cushion shall be to the satisfaction of the Engineer. Any unstable material shall be removed.

Additional excavation beyond the limits of the new concrete approach may be necessary to assure positive drainage. These areas shall be excavated to allow for the placement of 6 inches of gravel cushion.

It is not anticipated that water for compaction will be required; however, if in the opinion of the Engineer the excavated subgrade is extremely dry, water may be ordered and placed to the satisfaction of the Engineer. All costs for any added water shall be incidental to the contract lump sum price for "Unclassified Excavation".

GRAVEL CUSHION

Gravel Cushion, State Furnished shall be obtained from the Watertown DOT Maintenance Yard and shall be used without further testing. For excise tax purposes, the cost per ton of the Gravel Cushion, State Furnished, is \$8.00 per ton.

WATER FOR COMPACTION OF GRANULAR MATERIAL

Cost of water for compaction of the granular material shall be incidental to the contract unit price for "Gravel Cushion, State Furnished". Six percent, plus or minus, moisture will be required at the time of compaction unless otherwise directed by the Engineer.

STEEL BAR INSTALLATION

The Contractor shall install the steel bars (No. 5 smooth dowel tie bars) into drilled holes in the existing concrete floor of the cold storage shed. An epoxy resin adhesive must be used to anchor the steel bar in the drilled hole.

The steel bars shall be cut to the specified length by sawing and shall be free from burring or deformations. Shearing will not be permitted.

Epoxy resin adhesive shall be of the type intended for horizontal applications and shall conform to the requirements of ASTM C 881, Type IV, Grade 3 (equivalent to AASHTO M235, Type IV, Grade 3).

The diameter of the drilled holes in the existing concrete pavement for the steel bars shall not be less than 1/8 inch nor more than 3/8 inch greater than the overall diameter of the steel bar. Holes drilled into the existing concrete pavement shall be located at mid-depth of the slab and true and normal. The drilled holes shall be blown out with compressed air using a device that will reach to the back of the hole to ensure that all debris or loose material has been removed prior to epoxy injection.

Mix the epoxy resin as recommended by the manufacturer and apply by an injection method approved by the Engineer. If an epoxy pump is utilized, it shall be capable of metering the components at the manufacturers designated rate and be equipped with an automatic shut-off. The pump shall shut off when any of the components are not being metered at the designated rate. Fill the drilled holes from the back to the front 1/3 to 1/2 full of epoxy or as recommended by the manufacturer, prior to insertion of the steel bar. Care shall be taken to prevent epoxy from running out of the horizontal hole prior to steel bar insertion. Rotate the steel bar during installation to eliminate voids and ensure complete bonding of the bar. Insertion of the bars by the dipping method will not be allowed.

Steel bars shall not be placed closer than 9 inches to any construction joint or control joint.

The existing cold storage building is supported by 6" x 8" laminated poles placed 8 ft center to center. The smooth bars shall be anchored no closer than 9 inches to these poles. Spacing may need to be slightly adjusted to avoid drilling into these poles.

Concrete shall be placed when the epoxy for anchoring the steel bars has hardened sufficiently to permit no movement of the steel bars as recommended by the manufacturer.

All costs for the installation of steel bars shall be incidental to the contract unit price per each for "Install Steel Bar in PCC Pavement".

410A265
CODINGTON COUNTY

STEEL BAR INSTALLATION (continued)

Tie bars on the expansion joint that requires drilling holes and epoxy injection will be measured and paid for as "Install Steel Bar in PCC Pavement". Variation in quantity of "Install Steel Bar in PCC Pavement" will not be cause for change in contract unit bid price.

CONCRETE APPROACH PAVEMENT

A transverse metal tine finish will not be required. A broom finish will be required.

Concrete used for Approach Pavement shall be Class M6 with Crushed Ledge Rock.

All costs incurred for furnishing all materials, labor, equipment, and incidentals necessary to complete the work, except for installation of steel bars in drilled holes, shall be incidental to the contract unit price per square yard for "8" PCC Approach Pavement".

Joints shall be constructed in accordance with the details shown on Sheet No. 10. All costs incurred for the construction of joints shall be incidental to the contract unit price per square yard for "8" PCC Approach Pavement".

CURING OF CONCRETE

PCC Approach Pavement shall be cured with Linseed Oil Base Emulsion Compound in accordance with Section 821.

WASTE DISPOSAL SITE

The Contractor will be required to furnish a site(s) for the disposal of construction/demolition debris generated by this project.

Construction/demolition debris may not be disposed of within the State ROW.

The waste disposal site(s) shall be managed and reclaimed in accordance with the following from the General Permit for Highway, Road, and Railway Construction/Demolition Debris Disposal under the South Dakota Waste Management Program issued by the Department of Environment and Natural Resources.

The waste disposal site(s) shall not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements shall apply:

410A265
CODINGTON COUNTY

WASTE DISPOSAL SITE (continued)

1. Construction/demolition debris consisting of concrete, asphalt concrete, or other similar materials shall be buried in a trench completely separate from wood debris. The final cover over the construction/demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the State ROW shall be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor shall control the access to waste disposal sites not within the State ROW through the use of fences, gates, and placement of a sign or signs at the entrance to the site stating "No Dumping Allowed".
2. Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period of time not to exceed the duration of the project. Prior to project completion, the waste shall be removed from view of the ROW or buried and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) shall be incidental to the various contract items.

HISTORICAL PRESERVATION OFFICE CLEARANCES

To obtain SHPO clearance, a cultural resources survey may need to be conducted by a qualified archaeologist. The Contractor shall arrange and pay for this survey. In lieu of a cultural resources survey, the Contractor could request a literature search on the site and provide evidence that the site has been previously disturbed by farming, mining, or construction activities with a landowner statement that no artifacts have been found on the site. Jim Donohue, State Archaeological Research Center at 605-394-1937 shall be contacted for a literature search.

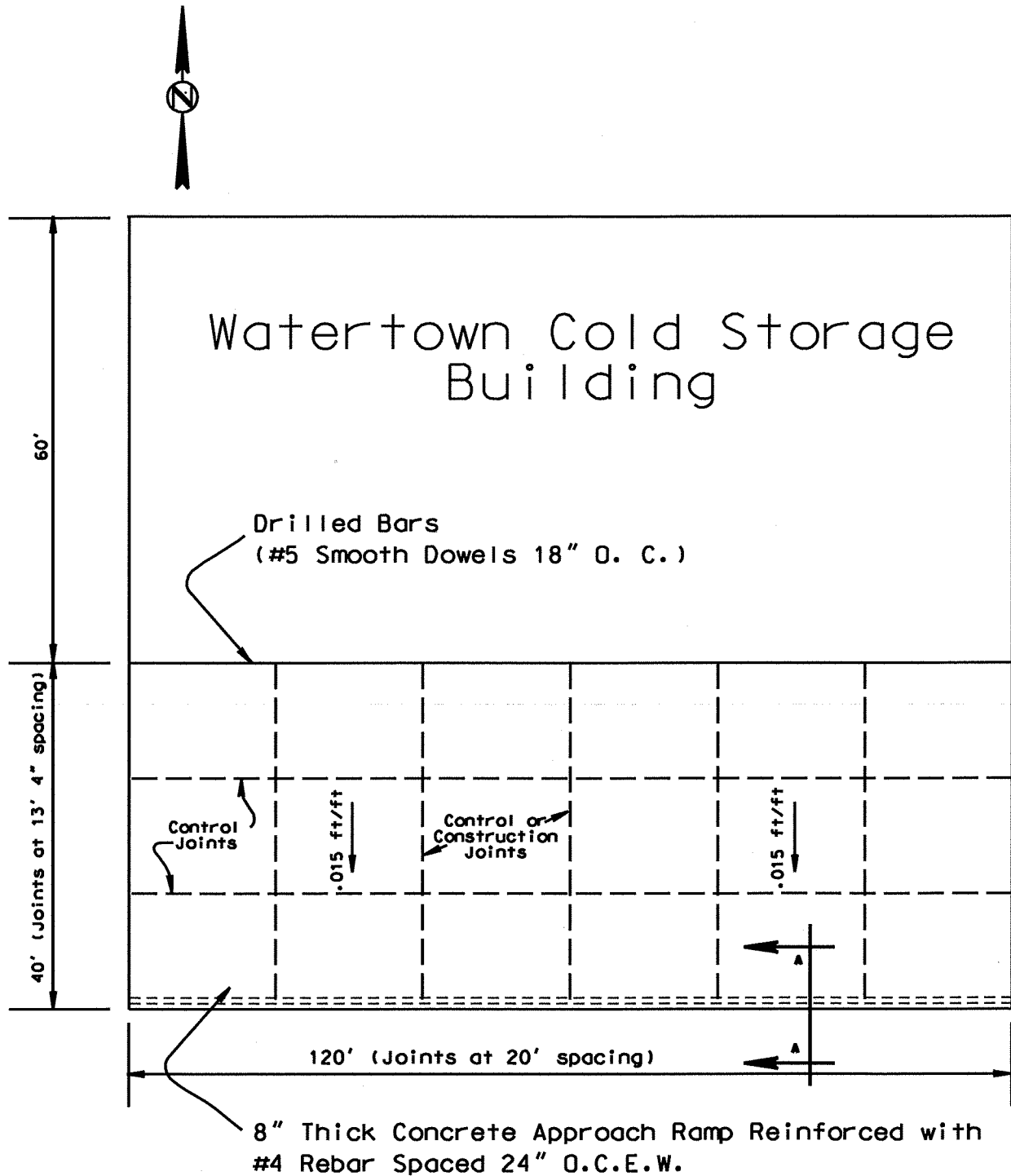
If borrow material is furnished from within the current geographical reservation boundaries or historic boundaries of the Lake Traverse, Yankton, or Flandreau-Santee reservations, the Contractor shall obtain THPO (Tribal Historical Preservation Office) clearance from the Tribal Cultural Resources Officer. This requirement is in addition to the SHPO clearance. If no Tribal contact exists, the required SHPO clearance shall suffice, with documentation of Tribal contact efforts provided to SHPO.

410A265
CODINGTON COUNTY

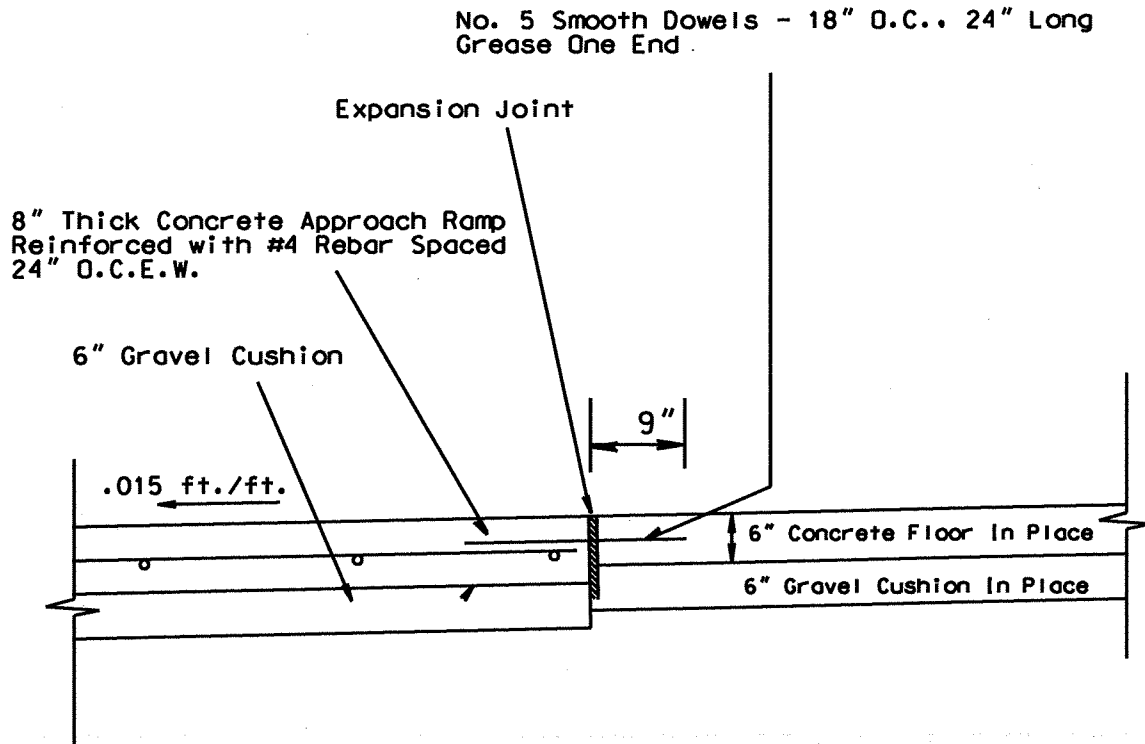
HISTORICAL PRESERVATION OFFICE CLEARANCES (continued)

To facilitate SHPO and THPO responses, the Contractor should submit a cultural resources survey report or the results of the literature search along with a legal description of the site, a topographical map with the site clearly marked, and evidence of prior site disturbance to Terrence G. Keller, DOT Environmental Supervisor, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3721). Allow 30 days from the date this information is submitted to the Environmental Engineer for SHPO approval. The Contractor is responsible for obtaining all required permits and clearances for the borrow and/or waste disposal site(s) prior to commencing construction activities at the borrow and/or waste disposal site(s). The Contractor shall provide the required permits and clearances to the Engineer at the preconstruction meeting.

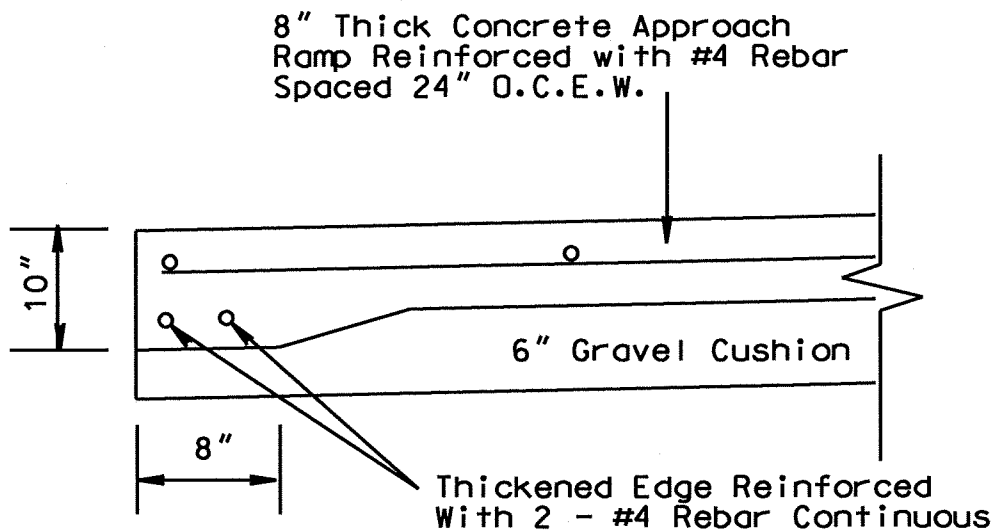
APPROACH SLAB LAYOUT



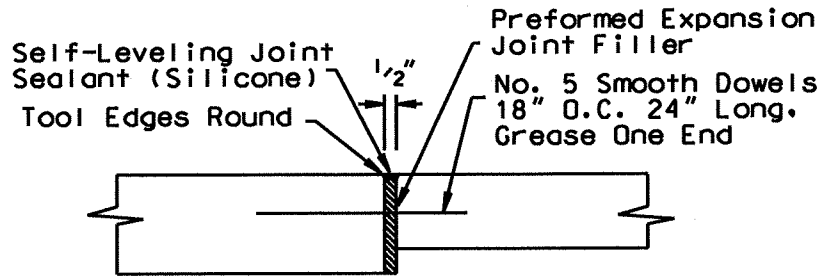
APPROACH SLAB DETAILS



SECTION A-A

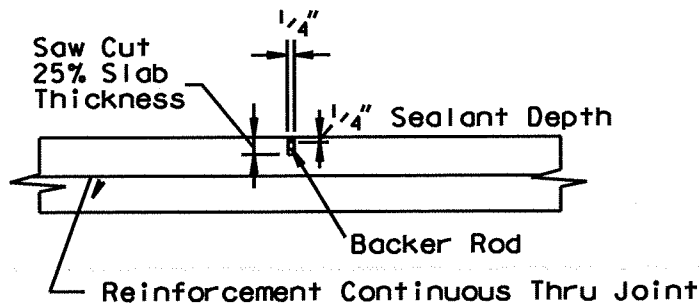


JOINT DETAILS

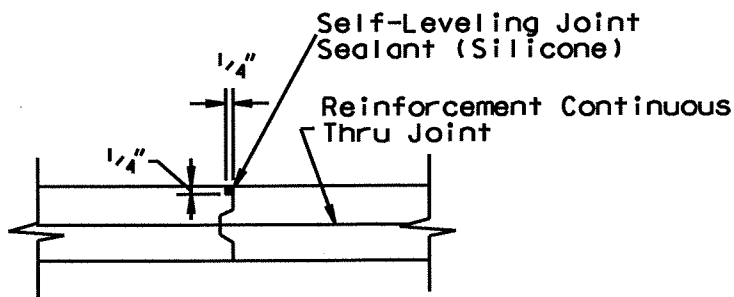


TYPICAL EXPANSION JOINT

Saw Cut - Fill with Self-Leveling Joint Sealant (Silicone)



TYPICAL CONTROL JOINT



TYPICAL CONSTRUCTION JOINT